STATE OF CALIFORNIA Gavin Newsom, Governor

#### PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298



January 5, 2023 TA2022-989

Melvin Stark
Principal Manager, T&D Compliance Integration
Southern California Edison
1 Innovation Way
Pomona, CA 91786

Subject: Transmission Audit of SCE Eastern Grid

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Mily Vaidya of my staff conducted a transmission audit of Southern California Edison's (SCE) Eastern Grid from October 10, 2022, to October 14, 2022. The audit included a review of SCE's records and field inspections of SCE's transmission facilities.

During the audit, my staff identified violations of one or more General Orders (GOs). A copy of the audit findings itemizing the violations is enclosed. Please advise me no later than February 6, 2023, by electronic or hard copy, of all corrective measures taken by SCE to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Mily Vaidya at (213) 999-8528 or Mily.Vaidya@cpuc.ca.gov.

Sincerely,

Fadi Daye, P.E.

Tadi Yange

Program and Project Supervisor Electric Safety and Reliability Branch Safety and Enforcement Division California Public Utilities Commission

**Enclosures: Audit Findings** 

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC Nika Kjensli, Program Manager, ESRB, SED, CPUC Mily Vaidya, Utilities Engineer, ESRB, SED, CPUC

# **AUDIT FINDINGS**

# I. Records Review

During the audit, my staff reviewed the following records:

- Circuit facility inspection records.
- Completed and pending corrective action work orders.
- Pole loading calculations.
- Tower Structure Analysis Records
- Safety hazard notifications.
- Intrusive test records
- SCE's documented inspection program.

# II. Field Inspections

My staff inspected the following facilities during the field inspection:

| No. | Structure ID | Structure Type | Location      |
|-----|--------------|----------------|---------------|
| 1   | M14-T3       | Tower          | Grand Terrace |
| 2   | M0-T3        | Tower          | Grand Terrace |
| 3   | M0-T6        | Tower          | Grand Terrace |
| 4   | 1239979E     | Pole           | Grand Terrace |
| 5   | 1259924E     | Pole           | Grand Terrace |
| 6   | M14-T3       | Tower          | Grand Terrace |
| 7   | 1239978E     | Pole           | Grand Terrace |
| 8   | 1239977E     | Pole           | Grand Terrace |
| 9   | 1239976E     | Pole           | Grand Terrace |
| 10  | 1239975E     | Pole           | Grand Terrace |
| 11  | 1259920E     | Pole           | Grand Terrace |
| 12  | 1259921E     | Pole           | Grand Terrace |
| 13  | 1259922E     | Pole           | Grand Terrace |
| 14  | 1259923E     | Pole           | Grand Terrace |
| 15  | M14-T1       | Tower          | Colton        |
| 16  | 4526222E     | Pole           | Colton        |
| 17  | 1274366E     | Pole           | Colton        |
| 18  | 1259941E     | Pole           | Colton        |
| 19  | M13-T1       | Tower          | Colton        |
| 20  | 4428547E     | Pole           | Colton        |
| 21  | M2-T1        | Tower          | Colton        |
| 22  | 4428548E     | Pole           | Colton        |
| 23  | 4010207E     | Pole           | Colton        |
| 24  | 2267010E     | Pole           | Colton        |
| 25  | M13-T1       | Tower          | Colton        |
| 26  | M2-T1        | Tower          | Colton        |
| 27  | M19-7        | Tower          | Colton        |
| 28  | 4329218E     | Pole           | Colton        |
| 29  | 4329217E     | Pole           | Colton        |
| 30  | M0-T2        | Tower          | Grand Terrace |
| 31  | 661207E      | Pole           | Grand Terrace |
| 32  | 4438430E     | Pole           | Grand Terrace |
| 33  | 4387036E     | Pole           | Grand Terrace |
| 34  | M0-T3        | Tower          | Grand Terrace |
| 35  | 4387044E     | Pole           | Grand Terrace |
| 36  | 8207707E     | Pole           | Grand Terrace |
| 37  | 4387045E     | Pole           | Grand Terrace |
| 38  | 1420595E     | Pole           | Grand Terrace |
| 39  | 4536582E     | Pole           | Grand Terrace |
| 40  | 827708E      | Pole           | Grand Terrace |

| 41 | 1420593E | Pole  | Grand Terrace      |
|----|----------|-------|--------------------|
| 42 | 827709E  | Pole  | Colton             |
| 43 | M0-T4    | Tower | Colton             |
| 44 | 1208383E | Pole  | Colton             |
| 45 | 1208384E | Pole  | Colton             |
| 46 | M0-T3    | Tower | Colton             |
| 47 | M0-T5    | Tower | Colton             |
| 48 | 827713E  | Pole  | Colton             |
| 49 | 827712E  | Pole  | Colton             |
| 50 | 1420591E | Pole  | Colton             |
| 51 | 125168S  | Pole  | Moreno Valley      |
| 52 | 4601073E | Pole  | Moreno Valley      |
| 53 | 2072790E | Pole  | Moreno Valley      |
| 54 | 1848668E | Pole  | Moreno Valley      |
| 55 | 4503850E | Pole  | Moreno Valley      |
| 56 | 2072792E | Pole  | Moreno Valley      |
| 57 | 1923270E | Pole  | Moreno Valley      |
| 58 | 1923271E | Pole  | Moreno Valley      |
| 59 | 1923272E | Pole  | Moreno Valley      |
| 60 | 1923273E | Pole  | Beaumont           |
| 61 | 4503527E | Pole  | Beaumont           |
| 62 | 4503529E | Pole  | Beaumont           |
| 63 | 4503530E | Pole  | Beaumont           |
| 64 | 4503532E | Pole  | Beaumont           |
| 65 | 4503533E | Pole  | Beaumont           |
| 66 | 4503534E | Pole  | Beaumont           |
| 67 | 4601906E | Pole  | Cabazon            |
| 68 | 4601907E | Pole  | Cabazon            |
| 69 | 4805734E | Pole  | Cabazon            |
| 70 | 1989039E | Pole  | Cabazon            |
| 71 | 1989040E | Pole  | Cabazon            |
| 72 | 4805735E | Pole  | Cabazon            |
| 73 | 1989041E | Pole  | Cabazon            |
| 74 | 4805736E | Pole  | Cabazon            |
| 75 | 4605145E | Pole  | Desert Hot Springs |
| 76 | 4751752E | Pole  | Desert Hot Springs |
| 77 | 4751751E | Pole  | Desert Hot Springs |
| 78 | 4431613E | Pole  | Desert Hot Springs |
| 79 | 4431614E | Pole  | Desert Hot Springs |
| 80 | 4431615E | Pole  | Desert Hot Springs |
| 81 | 4431616E | Pole  | Desert Hot Springs |
| 82 | 4431617E | Pole  | Desert Hot Springs |
| 83 | 4605147E | Pole  | Desert Hot Springs |
| 84 | 4534730E | Pole  | Desert Hot Springs |
| 85 | 4533543E | Pole  | Desert Hot Springs |

| 86  | 4620697E      | Desert Hot Springs |
|-----|---------------|--------------------|
| 87  | 4620696E      | Desert Hot Springs |
| 88  | 4695928E      | Desert Hot Springs |
| 89  | 4695927E      | Desert Hot Springs |
| 90  | 4695926E      | Desert Hot Springs |
| 91  | 2032469E      | Desert Hot Springs |
| 92  | 4531847E      | Desert Hot Springs |
| 93  | 4531848E      | Desert Hot Springs |
| 94  | 4092063E      | Desert Hot Springs |
| 95  | 2032467E      | Desert Hot Springs |
| 96  | 2032466E      | Desert Hot Springs |
| 97  | M1-T3/7028883 | Desert Hot Springs |
| 98  | 1981317E      | Riverside          |
| 99  | 1981309E      | Riverside          |
| 100 | 4721707E      | Riverside          |
| 101 | 4721706E      | Riverside          |
| 102 | VT4591        | San Bernardino     |
| 103 | VT4590        | San Bernardino     |
| 104 | VT4521        | San Bernardino     |
| 105 | V6000024      | San Bernardino     |
| 106 | V6000048      | San Bernardino     |
| 107 | VT4551        | San Bernardino     |
| 108 | V6001317      | San Bernardino     |
| 109 | V6001316      | San Bernardino     |
| 110 | 1813689E      | San Bernardino     |
| 111 | 1813690E      | San Bernardino     |
| 112 | 4026874E      | San Bernardino     |
| 113 | 4503506E      | San Bernardino     |
| 114 | 4503505E      | San Bernardino     |
| 115 | 4503504E      | San Bernardino     |
| 116 | 4503503E      | San Bernardino     |
| 117 | 4503501E      | San Bernardino     |
| 118 | A1320380E     | Yucipia            |
| 119 | A1320383E     | Yucipia            |

### **III.** Field Inspection - Violations List

My staff observed the following violations during the field inspection portion of the audit:

### GO 95, Rule 31.1, Design Construction and Maintenance, states in part:

Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.

The following SCE transmission facilities required maintenance:

- For the following poles, the portion of the down guy anchor that connects to the down guy wire was buried.
  - o 4010207E
  - o 4805734E
  - o 2032469E
- The following towers (in Colton) had a concrete foundation that was completely buried such that the dirt was covering steel members:
  - o M0-T4
  - o M0-T3
- The following poles had damage ground moulding:
  - o 1923270E
  - o 1923271E
  - o 1923272E
  - o 4503527E
  - o 4503529E
  - o 4503533E
  - o 2032469E
  - o 1981317E
  - o 1981309E
  - o 4026874E
  - o 4503506E
  - o 4503504E
  - o 4503503E
  - o A1320380E
- Poles numbered 4531847E and 4531848E each had a down guy wire that was not taut.
- Poles numbered 4387044E and 4026874E both had a broken ground wire.

# GO 95, Rule 51.6, Marking and Guarding, High Voltage Marking of Poles, states in part:

Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. A pair of signs may be stacked to a height of no more than 12 inches. Such signs shall be of weather and corrosion—resisting material, solid or with letters cut out therefrom and clearly legible.'

The high voltage signs on each of the following poles were either missing or damaged:

- 1274366E
- 4329218E
- 4387036E